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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 340310/17796	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR99/03164	International filing date (day/month/year) 16 December 1999 (16.12.99)	Priority date (day/month/year) 18 December 1998 (18.12.98)
International Patent Classification (IPC) or national classification and IPC F24F 13/068, 13/02		
Applicant U.N.I.R. ULTRA PROPRE-NUTRITION INDUSTRIE-RECHERCHE		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.	
2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.	
<input checked="" type="checkbox"/>	This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
These annexes consist of a total of <u>1</u> sheets.	
3. This report contains indications relating to the following items:	
I <input checked="" type="checkbox"/>	Basis of the report
II <input type="checkbox"/>	Priority
III <input type="checkbox"/>	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
IV <input type="checkbox"/>	Lack of unity of invention
V <input checked="" type="checkbox"/>	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
VI <input type="checkbox"/>	Certain documents cited
VII <input checked="" type="checkbox"/>	Certain defects in the international application
VIII <input type="checkbox"/>	Certain observations on the international application

Date of submission of the demand 12 July 2000 (12.07.00)	Date of completion of this report 23 February 2001 (23.02.2001)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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I. Basis of the report

1. This report has been drawn on the basis of (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

- ☐ the international application as originally filed.
- ☒ the description, pages 1-7, as originally filed,
 pages _____, filed with the demand,
 pages _____, filed with the letter of _____,
 pages _____, filed with the letter of _____.
- ☒ the claims, Nos. 11-12, as originally filed,
 Nos. _____, as amended under Article 19,
 Nos. _____, filed with the demand,
 Nos. 1-10, filed with the letter of 15 November 2000 (15.11.2000),
 Nos. _____, filed with the letter of _____.
- ☒ the drawings, sheets/fig 1/1, as originally filed,
 sheets/fig _____, filed with the demand,
 sheets/fig _____, filed with the letter of _____,
 sheets/fig _____, filed with the letter of _____.

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	1-12	YES
	Claims		NO
Inventive step (IS)	Claims	1-12	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-12	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

- D1: WO-A-97/40325 (cited in the application);
D2: Patent Abstracts of Japan, JP-A-10 002 841.

The present invention relates to a device for sterile air stream diffusion in a textile sheath.

D1 describes a sheath (1, Fig. 1) made of a flexible material for the close protection of sensitive products, said sheath defining a sterile-air supply duct (9, Fig. 1).

If there is a special section in the supply duct as per D1, the disturbances generated in the air stream inside the sheath can cause localized negative pressure, and thus vibrations of the sheath wall.

To solve this problem, the present application proposes that a conical or hemispherical diffuser of sterile air, positioned in the direction of the sterile air flow and centered on the longitudinal axis of the sheath, be installed in the supply duct just after the special section, taking into account the direction of the sterile

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air stream in the duct.

D2 discloses the insertion of conical diffusers (3, Fig. A) in a duct (exhaust duct 1, Fig. A) along the flow of the medium and centered on the longitudinal axis of the sheath with a view to reducing the vibrations in the exhaust duct.

Besides the fact that D2 does not relate to a sheath made of a flexible material, said document concerns auxiliary equipment for testing airplane engines. The combination of D1 and D2 would thus not be within the competence of a person skilled in the art of sterile-air diffusion devices.

Therefore, Claims 1 and 12 satisfactorily meet the requirements of novelty and inventive step.

Claims 2 to 11 define the possible additional features for a duct as per Claim 1.

The present application fully meets the requirements of PCT Article 33(2) and (3).

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VII. Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

Contrary to the requirements of PCT Rule 5.1(a)(ii), the description does not cite D2, nor does it indicate the relevant prior art disclosed therein.

REPLACED
BY ARTICLE 34

7/ A sheath (10) according to any one of claims 4 to 6, characterized in that said material constituting the diffusion cone (30) has porosity of about 0.5.

5 8/ A sheath (10) according to any one of claims 1 to 7, characterized in that said diffusion cone (30) is secured to the end of a sleeve (40) positioned inside said sterile air feed duct (13) on the longitudinal axis X of the sheath and presenting a section that is slightly
10 smaller than that of the sheath (10).

9/ A sheath (10) according to claim 8, characterized in that said sleeve (40) is made of a material that is less porous than the material of said diffusion cone (30).

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10/ A sheath (10) according to claim 8 or claim 9, characterized in that said sleeve (40) is made of a perforated flexible material such as a textile material such that under the action of the sterile air passing
20 through it takes up an oval shape and comes into contact with the inside face of a wall (11) of the sheath (10).

11/ A sheath (10) according to any one of claims 8 to 10, characterized in that it includes a central branch
25 connection constituted by a sterile air feed duct (20) opening out into said sheath (10) in a direction Y that is substantially perpendicular to the longitudinal axis of the sheath (10) such that at the outlet from said sterile air feed duct (20) the sterile air flows in two
30 opposite directions generally along the longitudinal axis X of said sheath, the sheath being provided internally at the outlet from the branch connection with a diffusing sleeve (40) extending along the longitudinal axis X of the sheath (10) and having a diffusion cone (30) at each
35 end (41, 42), the cones being oriented in the sterile air flow direction and centered on the longitudinal axis X of the sheath (10).